

In The Claims

1. (Currently Amended) A pixel circuit comprising:
 - a photodetector connected to a first node;
 - a dual-driver MOSFET having a gate connected to the first node;
 - a reset MOSFET having a first leg connected to the first node and a second leg connected to a second node;
 - an access MOSFET having a first leg connected to a row bus and a second leg connected to the second node;
 - a row select MOSFET having a first leg connected to the dual-driver MOSFET and a second leg connected to a column bus;
 - an access supply connected to the row bus, the access supply comprising a current source that operates as a distributed feedback amplifier when connected to the MOSFETs;
 - a source supply connected to the column bus; and
 - a reset supply connected to a gate of the reset MOSFET;wherein the MOSFETs all have the same polarity.

2. (Original) The pixel circuit of Claim 1, wherein the photodetector is a photodiode.

3. (Cancelled)

4. (Original) The pixel circuit of Claim 3, wherein the feedback amplifier is a cascoded inverter.

5. (Original) The pixel circuit of Claim 4, wherein the reset supply produces a tapered waveform.

6. (Original) The pixel circuit of Claim 5, wherein the source supply comprises an operational amplifier, a bias transistor and a mode transistor.

7. (Original) The pixel circuit of Claim 6, wherein the MOSFETs are N-type MOSFETs.

8. (Currently Amended) An active pixel sensor array having a plurality of pixel sensors, each pixel sensor comprising:

a photodiode connected to a first node;

a dual-driver MOSFET having a gate connected to the first node;

a reset MOSFET having a first leg connected to the first node and a second leg connected to a second node;

an access MOSFET having a first leg connected to a row bus and a second leg connected to the second node;

a row select MOSFET having a first leg connected to the dual-driver MOSFET and a second leg connected to a column bus;

an access supply connected to the row bus, the access supply comprising a distributed feedback amplifier, when connected with the MOSFETs;

a source supply connected to the column bus; and

a reset supply connected to a gate of the reset MOSFET, the reset supply producing a tapered reset waveform;

wherein the MOSFETs all have the same polarity.

9. (Original) The pixel array of Claim 8, wherein the source supply comprises an operational amplifier, a bias transistor and a mode transistor.

10. (Original) The pixel array of Claim 9, wherein the MOSFETs are N-type MOSFETs.

11. (Currently Amended) A CMOS image sensor of the type having a plurality of active pixel sensors arranged in rows and columns and connected to row and column buses, the improvement comprising an access supply connected to an access transistor via a ~~column~~ row bus, the access supply comprising a current source configured as a distributed feedback amplifier.